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Forests and Climate Change

Citation for published version:

Savaresi, A 2013, 'Forests and Climate Change: A REDD Revolution? ', *Carbon and Climate Law Review*, vol. 7, no. 2, pp. 144-49. <<http://www.lexxion.de/de/verlagsprogramm-shop/details/3727/295/cclr/cclr-2/2013/book-reviews-&-new-publications>>

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

Carbon and Climate Law Review

Publisher Rights Statement:

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Law, Tropical Forests and Carbon. The Case of REDD+, edited by Rosemary Lyster, Catherine MacKenzie and Constance McDermott
Cambridge, UK: Cambridge University Press, 2013. 289 pp., US\$ 110.00, hardback.

Climate Change, Forests and REDD, edited by Joyeeta Gupta, Nicolien van der Grijp and Onno Kuik
London: Routledge, 2013. 263 pp., US\$ 145.00, hardback.

Book Review Essay: Forests and Climate Change: A REDD Revolution?

I. Introduction

The forest sector is estimated to produce approximately one sixth of global anthropogenic greenhouse gas emissions, largely as a result of forest loss in the tropics.¹ The endeavour to reap the sizeable mitigation potential associated with this sector has resulted in a complicated policy-making process at the international and national levels.

At the international level, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) have since 2007 been negotiating measures to reduce emissions from forest loss and incentivize forest carbon sequestration in developing countries, commonly referred to with the acronym REDD+.² The idea of including in the climate regime a set of measures to address emissions in the forest sector in developing countries attracted much support and was initially characterized by great momentum, especially when compared with the stalemate otherwise affecting negotiations on the future of the climate regime. UNFCCC Parties have nevertheless struggled to agree on the means by which to put the REDD+ idea into practice, and only managed to adopt a handful of decisions on the issue, which do not provide a clear and definitive set of internationally coordinated rules on how to carry out REDD+ activities. In spite of recent developments,³ the adoption of an international REDD+ system under the UNFCCC is in limbo and may never even take place.

¹ The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) estimated the share of anthropogenic greenhouse gas emissions from the forest sector in 2004 at around 17.4%: IPCC, *Climate Change 2007: Synthesis Report* (Cambridge: Cambridge University Press, 2007), 36. According to subsequent estimates, this number may be closer to 15%. See Guido van der Werf et al., "CO₂ Emissions from Forest Loss", 2 *Nature Geoscience* (2009), 737.

² Following a two-years debate prompted by a submission by Costa Rica and Papua New Guinea in 2005, "policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" was included as an official negotiation item in the 2007 Bali Action Plan Cf. Conference of the Parties to the UNFCCC, Thirteenth Sess., Bali, Indonesia, 3-15 Dec. 2007, *Decision 1/CP.13, Bali Action Plan*, U.N. Doc. FCCC/CP/2007/6/Add.1 ¶ 1 (b) (iii) (14 Mar. 2008). Negotiations first addressed the matter of reducing emissions from deforestation and subsequently also that of forest degradation in developing countries - hence the acronym REDD. The scope of action was subsequently expanded to include also the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries - commonly referred to with the acronym REDD+. Both acronyms are used in practice. For the sake of expediency, this review will only use the acronym REDD+.

³ Julie Mullins and Louis Verchot, "Bonn Climate Talks Tackle Emissions Verification Stumbling Block", 24 June 2013, available on the Internet at <<http://blog.cifor.org/17406/bonn-climate-talks-tackle-emissions-verification-stumbling-block/>> (last accessed on 4 July 2013).

Conversely, at the national level numerous countries have made voluntary pledges to reduce their emissions in the forest sector,⁴ undertaking a host of ambitious policy reforms, with the assistance of international initiatives to facilitate so-called “REDD+ readiness”, most prominently the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD) and the Forest Carbon Partnership Facility (FCPF). What began as an international policy-making process under the auspices of the UNFCCC has thus become split in a variety of formal and informal overlapping and even competing national law- and policy-making processes coordinated by international initiatives falling outside the institutional scope of the UNFCCC, which have engendered a very heterogeneous set of outcomes.⁵

The reason for this proliferation of processes is largely due to the fact that the adoption of internationally coordinated measures on REDD+ has been hampered by lack of consensus on a series of technical questions specific to the forest sector (such as, for example, those concerning measurement, reporting and verification of emissions (MRV)),⁶ as well as by the resurgence of inveterate forest governance questions associated with the conservation of biodiversity and the livelihood and subsistence of forest-dependent segments of the population in developing countries.

In the beginning, the debate on REDD+ raised many hopes, seemingly providing an opportunity to revolutionize the approach to the problem of forest loss, with important implications not only for the climate regime, but also for the forest regime. The idea was quite simple: that of establishing an international mechanism to provide financial incentives to secure the provision of a host of global public goods supplied by forests, including not only carbon sequestration, but also biodiversity conservation and poverty alleviation.⁷ Influential studies estimated that the global benefits of reducing forest loss were higher than the costs.⁸ Therefore, the solution to the problem of forest loss and related emissions was to make it more cost-effective to keep forests, rather than cutting them down. This is no path-breaking idea and an increasingly large number of countries have introduced domestic schemes for the payment of the ecosystem services (PES).⁹ The underpinning for this approach

⁴ Compare: <http://unfccc.int/meetings/cop_15/copenhagen_accord/items/5265.php> (last accessed on 4 July 2013).

⁵ On the issue see for example, Annalisa Savaresi, “The Role of REDD in the Harmonisation of Overlapping International Obligations” in Erkki Hollo, Kati Kulovesi, and Michael Mehling (eds.) *Climate Change and the Law* (New York: Springer, 2013), 391.

⁶ Johannes Ebeling, “Risks and Criticism of Forestry-Based Climate Change Mitigation and Carbon Trading”, in Charlotte Streck et al. (eds.), *Climate Change and Forests. Emerging Policy and Market Opportunities* (Washington, DC: Brookings Institution Press, 2008), 52.

⁷ On the issue, see for example, TEEB, *Climate Issues Update* (TEEB, 2009), 17.

⁸ See for example Nicholas Stern, *The Economics of Climate Change* (Cambridge: Cambridge University Press, 2007), 26; and the comprehensive review carried out in Johan Eliasch, *Climate Change: Financing Global Forests. The Eliasch Review* (London: Earthscan, 2008), especially chapter 6.

⁹ The term “payment for ecosystem services” has several definitions in the literature. One of the most commonly cited definitions in the literature describes PES as a voluntary transaction where a well-defined ecosystem service (or type of land use likely to secure that service) is “bought” by at least one ecosystem service buyer from at least one ecosystem service provider, if and only if the provider secures the provision (conditionality). Cf. Sven Wunder, *Payments for Environmental Services: Some Nuts and Bolts* (Bogor: CIFOR, 2005), 3.

derives from the idea that ecosystem services are public goods, and that people who ensure these services should be rewarded to continue doing so.¹⁰

Negotiations on REDD+ under the UNFCCC are the by-product of this way of thinking, and were largely expected to create an international system to finance forests carbon sequestration in developing countries. The establishment of such a system preliminarily required that states decide how much of the desired forest-related global public good to produce, how to produce it concretely and how to allocate the related costs.¹¹ Reaching consensus on these issues, however, has proven difficult.

While the idea of REDD+ opened up a new horizon, it did bring about new dilemmas. The commoditization of forest carbon was projected to challenge already precarious legal arrangements on forest ownership and tenure and exert considerable pressure on existing forest governance arrangements in developing countries. The long-term sustainability of REDD+ was largely predicted to require that new land uses benefit “poor people and forest communities”.¹² The Intergovernmental Panel on Climate Change (IPCC) specifically warned that forest-related mitigation activities would also need to avoid negative impacts on food production and biodiversity that are likely to result from competition between land uses.¹³

As the debate on REDD+ unfolded, it thus became apparent that carrying out this ambitious policy experiment was neither going to be quick nor easy. And while negotiations under the UNFCCC continue at a slow pace, the REDD+ readiness processes have become a very complex reality of international standards and bilateral endeavours carried out beyond the institutional scope of the UNFCCC, coupled with a cascade of domestic reforms.

An increasingly large body of literature has tried to make sense of this process, addressing questions concerning the design of REDD+ and the related policy-making endeavours at the international and at the national level. The two edited collections under review summarize the evolution of the REDD+ process, providing two sets of largely complementary interdisciplinary reflections on it.

II. Perspectives from Science, Law and Governance

As the title reveals, the first volume, edited by Rosemary Lyster, Catherine MacKenzie and Constance McDermott,¹⁴ analyzes the REDD+ process from an interdisciplinary perspective, providing a snapshot of the state of affairs up to 2012, as well as a “roadmap” of complexities and challenges that have emerged along the way.¹⁵ The volume includes contributions by natural scientists, addressing issues such as MRV, as well as social scientists, dealing with broader governance questions.

¹⁰ On the issue, see Nathaniel O. Keohane and Sheila M. Olmstead, *Markets and the Environment* (Washington, DC: Island Press, 2007), 70.

¹¹ For this conceptualization of the provision of public goods in international law, see Daniel Bodansky, “What’s in a Concept? Global Public Goods, International Law, and Legitimacy”, 23 *European Journal of International Law* (2012), 651, at 656.

¹² Eliasch, *Climate Change: Financing Global Forests*, *supra*, note 8, 53.

¹³ Gert Jan Nabuurs et al., “Forestry”, in Bert Metz et al. (eds.), *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, UK: Cambridge University Press, 2007), 543.

¹⁴ Rosemary Lyster et al. (eds.), *Law, Tropical Forests and Carbon: The Case of REDD+* (Cambridge, UK: Cambridge University Press, 2013).

¹⁵ Rosemary Lyster et al., “Preface”, in Lyster et al., *Law, Tropical Forests and Carbon*, *supra*, note 14, xi.

The volume opens with a contribution by Lyster, sketching out the evolution of REDD+ under the UNFCCC, summarizing the main Conference of the Parties (COP) decisions on the issue and the legitimacy concerns associated not only with ensuring “real” climate change mitigation, but also with the social and environmental impacts of REDD+ activities. The author concludes that, as the international law machinery of REDD+ remains at an “incipient stage”, it is much too early to tell whether these impacts will be adequately addressed by the safeguards that have been adopted this far.¹⁶

On the natural science basis for REDD+, Malhi and Marthews clarify the contribution of forests to the global carbon cycle, emphasizing the potential to design large-scale PES in a way to include not only carbon sequestration, but also the conservation of biodiversity, providing an unprecedented “win-win scenario”.¹⁷ In the following chapters, Rudel illustrates considerations underpinning the scope of REDD+ activities, whereas two contributions are dedicated to eviscerate the complexities inherent in the measurement of forest carbon stocks. Avitabile summarizes various approaches to measurement, as well as challenges associated with remote sensing, explaining how the debate on REDD+ has engendered new research demands, which are yet to be met. The matter is further explored in a chapter by DeVries and Herold, who give a methodological overview of MRV, reviewing guidelines adopted thus far, as well as the application of remote sensing technology to REDD+.

The remainder of the volume focuses on governance questions. A chapter by McDermott places REDD+ in the context of international tropical forest governance endeavours, arguing that unprecedented support for REDD+ is coupled with equally unprecedented complexity, requiring its integration “into larger systems for prioritizing the full range of social and environmental values”.¹⁸ Analogous caveats are expressed in the contribution by MacKenzie, which discusses the design, implementation and enforcement of REDD+ in light of principles emerging from international forest law. The author suggests that REDD+ draw lessons from limited progress made in the international forest regime,¹⁹ placing specific emphasis on the need for transparency and accountability.²⁰

The main financing options for REDD+ are reviewed in a chapter by Streck, who warns that the funds pledged so far fall short of covering the financial needs of countries implementing REDD+, that public funds will almost certainly not provide the resources needed, and that private funds will have to be leveraged.

Fisher and Lyster analyze the legal and regulatory instruments and agreements pertaining to REDD+ with a focus on forest and land tenure rights, cautioning that experience with the devolution of community forestry rights “do[es] not augur well” for the devolution of rights under REDD+.²¹

¹⁶ Rosemary Lyster, “International Legal Frameworks for REDD+: Ensuring Legitimacy”, in Lyster et al., *Law, Tropical Forests and Carbon*, *supra*, note 14, 25.

¹⁷ Yadvinder Malhi and Toby R. Marthews, “Tropical Forests: Carbon Climate and Biodiversity”, in Lyster et al., *Law, Tropical Forests and Carbon*, *supra*, note 14, 43.

¹⁸ Constance McDermott, “REDD+ and Multi-level Governance: Governing for What and for Whom”, in Lyster et al., *Law, Tropical Forests and Carbon*, *supra*, note 14, 101.

¹⁹ Catherine MacKenzie, “Designing, Implementing and Enforcing REDD+ Schemes”, in Lyster et al., *Law, Tropical Forests and Carbon*, *supra*, note 14, 133.

²⁰ *Ibid.*, 129.

²¹ Robert Fisher and Rosemary Lyster, “Land and Resource Tenure: The Rights of Indigenous Peoples and Forest Dwellers”, in Lyster et al., *Law, Tropical Forests and Carbon*, *supra*, note 14, 199.

The broader human development implications of REDD+ are reviewed in a piece by Peskett, who summarizes questions concerning the impact of REDD+ activities on poor and vulnerable groups that rely on forests for their livelihood and subsistence. The issue has attracted much attention since the debate on REDD+ started, and the author does a good job in pointing to the specific challenges inherent to REDD+, recommending its mainstreaming into wider development strategies, if large financial flows initially envisioned for REDD+ under the climate regime do not materialize.

Finally, the volume includes two chapters on the experience with REDD+ in Indonesia and Brazil. These two countries presently harbor the world's largest potential for climate change mitigation in the forest sector and have already undertaken significant steps to exploit this potential, making voluntary pledges to reduce their emissions²² and undertaking a host of ambitious policy reforms. In order to do so, however, they have gone down two rather dissimilar paths. While Indonesia has participated in both the UN-REDD Programme and the FCPF, reportedly achieving little emission reductions, Brazil has not, but nevertheless managed to significantly reduce its emissions. Lessons learned from these experiences provide an important and much needed reality check concerning the implementation of REDD+ at the national level. The two chapters dealing with this issue make an important contribution to the literature on the matter.

Neilson and Leimona give an insightful overview of specific challenges facing the implementation of REDD+ in Indonesia, by painting a clear picture of the relevant law and policy scenario. This overview is nicely complemented by that of Butt, Garcia, Parsons and Stephens, who draw an excellent comparative analysis of the main legal and policy arrangements supporting REDD+ in Brazil and Indonesia, concluding with a provisional assessment on whether the two countries are ready for REDD+.

The volume does not include final conclusions, which is a shame, as an overall summary and set of reflections could have endowed it with greater unity, and help the reader making sense of overlaps between chapters. Still, the volume paints a comprehensive picture of progress on REDD+ to date, giving a clear impression of the tantalizing efforts required by this evolving climate and forest policy experiment.

III. The Institutional Design of REDD

The second collection under review, edited by Joyeeta Gupta, Nicolien van der Grijp and Onno Kuik, is one of the outputs of a larger multidisciplinary research project on Reducing Emissions from Deforestation and Forest Degradation through Alternative Land uses and Rainforests of the tropics (REDD-ALERT).²³ The volume includes contributions by natural and social scientists, pursuant to a common methodology, which is expounded in a chapter authored by the editors, together with Matthews, Minang and van Noordwijk. The authors explain that REDD+ may be viewed from different angles, depending on whether one looks at it through the lens of the climate regime, or that of the forest regime. They emphasize that the volume focuses on the

²² Government of Brazil, Letter including nationally appropriate mitigation actions, 29 January 2010; and Government of Indonesia, Indonesia Voluntary Mitigation Actions, 20 January 2010. Both documents are available on the Internet at: <http://unfccc.int/meetings/cop_15/copenhagen_accord/items/5265.php> (last accessed on 4 July 2013).

²³ Joyeeta Gupta et al., *Climate Change, Forests and REDD* (London: Routledge, 2013).

potential of REDD+ to build on existing instruments,²⁴ with the overall aim to elaborate recommendations for the design of a policy framework for REDD+ based upon lessons learned from extant forest institutional arrangements, from the international to the local level. To achieve this aim, the volume outlines a conceptual framework to understand the matter of forest loss, the arrangements that have been made to address it at the international level, coupled with a series of case studies dealing with measures adopted at the national level.

First, a contribution by Gupta, Young, Matthews, Meyfroidt and Kuik summarizes and critically reviews the theory of “forest transitions” that provides much of the rationale for REDD+, underscoring the importance of identifying context-specific drivers of deforestation, as well as adequate measures to address them.

Then, two chapters by Haug and Gupta summarize the evolution of instruments and institutions dealing with forest governance at the international level, emphasizing how forests are chiefly treated as natural resources in international law, which recognizes states’ permanent sovereignty over them, as well as states’ right to exploit their forest resources according to their environmental policies. This excursus of extant international arrangements is completed with a succinct negotiation history of REDD+, including developments outside the institutional scope of the UNFCCC. The authors recapitulate the main contentious issues around which the debate on REDD+ has centred, expressing some scepticism on whether it will succeed in achieving its ambitious objectives.²⁵

The volume continues with four case studies analyzing forest governance in Cameroon, Peru, Indonesia and Vietnam. The case studies follow a similar structure, surveying extant institutional and policy arrangements, providing an assessment of their implications for REDD+. A chapter co-authored by Gupta and van der Grijp and some of the case study authors draws a comparative overview of national experiences, providing some recommendations for the design of REDD+.

This informative overview is followed by a rather technical analysis of the economic dimension of deforestation and forest degradation, deploying economic models to understand the relationship between drivers and incentives.

The volume closes with a chapter by the editors, Matthews, Meyfroidt and Haug, drawing some general reflections on global forest governance and emphasizing how the advent of REDD+ and the possibility to access unprecedented levels of funding have induced numerous developing countries to accept treating forests as a global issue. The authors nevertheless caution that numerous obstacles stand in the way, most saliently those associated with the duplication of efforts and leakage, and, more generally, that of agreeing upon a range of standards based upon which to assess country performance. The authors further caution that, if poorly designed and/or implemented, REDD+ may turn into a “lose-lose situation”.²⁶ They provide recommendations on how to build on lessons learned from existing instruments, arguing for a “glocal” approach to forest governance, going beyond REDD+ by mainstreaming forest protection into development paths. More generally, the authors conclude that, even if it may disappear from the global agenda in its current form, the

²⁴ Joyeeta Gupta et al., “Climate Change and Forests: From the Noordwijk Declaration to REDD”, in Joyeeta Gupta et al., *Climate Change, Forests and REDD*, *supra*, note 23, 20.

²⁵ Constanze Haug and Joyeeta Gupta, “The Emergence of REDD on the Global Policy Agenda”, in Joyeeta Gupta et al., *Climate Change, Forests and REDD*, *supra*, note 23, 92.

²⁶ Joyeeta Gupta et al., “The Future of Forests”, in Joyeeta Gupta et al., *Climate Change, Forests and REDD*, *supra*, note 23, 254.

enduring legacy of REDD+ will be that to have brought “renewed vigour” to the debate concerning forests and human-forests interaction.²⁷

Overall, the volume collects an impressive catalogue of information, revolving around a common theoretical and methodological framework, which facilitates the reader in following the path traced by the editors through the intricacies of the ongoing policy discourse concerning REDD+, from the global to the local level.

III. Conclusions

Drawing a comprehensive set of reflections on an ongoing, multifarious process such as that concerning REDD+ is a daunting task. The two volumes under review are part of a predictably long series of studies providing an academic purview on the complexities of the policy debate on REDD+. Both volumes abundantly clarify how technical questions have intertwined with multifaceted forest governance dilemmas that have long eluded international regulation. The debate on REDD+ has thus reopened long-standing, and perhaps even “intractable”²⁸ forest governance issues, becoming unsurprisingly engulfed with a range of questions that go well beyond the remit of climate law.

The volumes make an effort to step back from the politics of this debate, to provide an academic analysis of this evolving climate and forest policy instrument. They reveal that the debate on REDD+ under the UNFCCC has turned out to be an extremely complex and challenging undertaking and that the process of adopting measures to facilitate REDD+ at the national level has been tortuous and time-consuming. So while REDD+ presents an opportunity to rethink the matter of forests as one of provision of ecosystem services and global public goods, rather than mere natural resources, the actual implications of this potential paradigm shift largely remain to be seen.

In sum, the volumes contribute in their different ways to an ongoing conversation about the ambitious environmental policy experiment that is REDD+. Their analyses of progress so far provide welcome food for thought for academics and practitioners attempting to make sense of the maze of initiatives undertaken to make the idea of REDD+ a reality, as well as for policy-makers grappling with this intriguing experiment.

Annalisa Savaresi (University of Edinburgh)

²⁷ Ibid.

²⁸ William Boyd, “Climate Change, Fragmentation, and the Challenges of Global Environmental Law: Elements of a Post-Copenhagen Assemblage”, 32 *University of Pennsylvania Journal of International Law* (2010), 457, 548.